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| 09/769,122 | 01/24/2001 | Thomas J. Walczak | CS10560 | 5562 |

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Motorola, Inc.
Intellectual Property Dept. (RKB)
600 North US Highway 45, AN475
Libertyville, IL 60048

| EXAMINER | |
|---|---|
| BHATTACHARYA, SAM | |
| ART UNIT | PAPER NUMBER |
| 2617 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 09/769,122 | WALCZAK ET AL. | |
| | Examiner | Art Unit | |
| | Sam Bhattacharya | 2617 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *17 August 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-4,8,9,11-15,20,21,26,27 and 29-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *1-4,8,9,11-15,20,21,26,27 and 29-32* is/are rejected.

7)☐ Claim(s) *33* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12-15 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claim 12 recites the limitation "the plurality of time stamped prior location fixes" in lines 10-11. There is insufficient antecedent basis for this limitation in the claim.

### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-3, 7, 9, 27, 30 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, Jr. (US 2001/0052849) in view of Chou (US 2002/0055817).

As to claims 1, 7 and 30, the Jones reference discloses a method for validating a non-network based location fix of a mobile station in a communications network, comprising: generating a non-network based location fix of the mobile station; evaluating the validity of the

non-network based location fix of the mobile station by comparing the non-network based location fix with a prior location fix. See FIGS. 4-6 and paragraph 21, lines 1-16.

Jones fails to disclose determining whether the non-network based location fix is within a specified range of a prior location fix, the specified range based on an estimated velocity of the mobile station and a time interval between the generation of the prior location fix and the non-network based location fix.

However, Chou discloses a GPS system including determining whether the non-network based location fix is within a specified range of a prior location fix, the specified range based on an estimated velocity of the mobile station and a time interval between the generation of the prior location fix and the non-network based location fix. See FIG. 10, paragraph 62, lines 1-13 and paragraph 66, lines 1-11. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones by incorporating these features taught in Chou for the purpose of achieving a fast time to a location fix without use of new GPS ephemeris data.

As to claim 2, the Jones reference discloses generating the non-network based location fix includes receiving global positioning system signals at the mobile station. See paragraph 24, lines 1-10.

As to claims 3, the Jones reference discloses the communications network having a plurality of base stations 24, generating the location fix by measuring a time related parameter of signals received at the mobile station from several base stations neighboring the mobile station. See paragraph 26, lines 1-12.

As to claims 9, the Jones reference discloses the method of Claim 1, evaluating the validity of the non-networked (or satellite positioning system) based location fix by comparing it to one location fix, generating a plurality of location fixes of the mobile station and evaluating the validity of the non-networked (or satellite positioning system) based location fix by comparing it to at least one of the plurality of location fixes. See paragraph 26, lines 1-12.

As to claim 27, Jones shows a cellular mobile station, comprising:

a satellite positioning system (GPS) signal reception interface in the mobile station ("mobile machine") for receiving satellite positioning system signals;

a cellular communications network interface in the mobile station for communicating with a cellular communications network;

an information processor coupled to the satellite positioning system signal reception interface and the cellular communications network interface,

the information processor for evaluating the validity of a satellite positioning system based location fix by comparing it to one mobile station location fix and by comparing it to at least one prior mobile station location fix. See FIGS. 4-6 and paragraph 21, lines 1-16.

Jones fails to disclose a satellite based location fix based on at least one prior mobile station location fix stored in memory. However, Chou discloses a position determining device in which a satellite based location fix based on at least one prior mobile station location fix stored in memory. See paragraph 64, lines 1-12. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones by incorporating these features taught in Chou for the purpose of obviating the need to have the location fix transmitted to the mobile device.

As to claim 31, the Jones reference discloses evaluating the validity of the location fix based on a specified range (i.e., the sequence of cells in FIG. 2) of a previously generated location fix. See paragraph 23, lines 1-27.

6. Claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Chou and Hill et al. (U.S. Patent 5,857,155).

As to claim 4, Jones-Chou discloses the method of Claim 1. However, it does not disclose translating the location fix and the non-network based location fix into a common format prior to comparing the network and non-network based location fixes. The Hill reference teaches "a method of controlling the operation of a subscriber device having a GPS receiver within a messaging system having a plurality of transmitters having known coordinates comprises the steps of acquiring GPS information from the GPS receiver and accessing a memory location having known transmitter coordinates and comparing the known transmitter coordinates with the GPS information" (Col. 1, lines 58-65).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones to translate the location fix and the non-network based location fix into a common format prior to comparing the network and non-network based location fixes, as taught by Hill, in order to control the operation of a subscriber device with adjustment to the power from the transmitter module.

As to claim 8, the Jones reference discloses the method of Claim 1, the communications network having a plurality of base stations, generating the location fix by measuring at the mobile station several base station signals neighboring the mobile station. However, it does not

disclose evaluating the validity of the non-network based location fist by determining whether the non-network based location fix is within a specified range of the mobile station location fix. As cited in claim 6, the Hill reference teaches evaluating the validity of the non-network based location fist by determining whether the non-network based location fix is within a specified range of the mobile station location fix.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones to evaluate the validity of the non-network based location fix by determining whether the non-network based location fix is within a specified range of the location fix, as taught by Hill, in order to adjust the transmit output level in a subscriber device.

7. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Chou and Bala et al. (U.S. Patent Application Publication 2002/0068580 A1).

As to claim 11, Jones and Chou discloses the method of Claim 1. However, it does not disclose generating a plurality of location fixes of the mobile station, estimating a future location fix of the mobile station based on the plurality of the location fixes, evaluating the validity of the non-networked based location fix by determining whether the non-network based location fix is within a specified range of the estimated location fix. As cited in claim 9, The Bala reference teaches generating a plurality of location fixes of the mobile station ("movement information for a subscriber can include past locations for a subscriber, e.g., the identity of and number of times transmitters have successfully polled the subscriber, or future expected movement activity" (page 1, col. 1, paragraph [0006], lines 8-12)) and estimating a future location of the mobile station

based on the plurality of the location fixes ("the movement information for the subscriber is analyzed to determine the likely current location of the subscriber" (page 2, col. 1, paragraph [0019], lines 2-4)).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones to generate a plurality of location fixes of the mobile station and estimate a future location fix of the mobile station based on the plurality of the location fixes, as taught by Bala, in order to determine the probable current location of the mobile station.

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones, Jr. (US 2001/0052849) in view of Sanderford et al. (US 5,917,449).

As to claims 21, Jones discloses a method for validating a location fix of a mobile station ("mobile machine"), including generating a plurality of location fixes of the mobile station. See paragraph 20, lines 1-20 and 22, lines 1-11.

Jones fails to disclose estimating a future position fix of the mobile station based on the plurality of location fixes and evaluating the validity of a recently generated location fix of the mobile station by determining whether it is within a specified range of the estimated future position fix of the mobile station.

However, Sanderford discloses these features at col. 2, lines 53-59. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones by incorporating this feature taught in Sanderford for the purpose of further increasing the accuracy and reliability of the location fix.

As to claim 26, the Jones reference discloses defining the specified range based on estimated velocity of the mobile station and a time variable. See paragraph 23, lines 1-27.

9. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jones in view of Chou and Sanderford.

As to claim 32, Jones and Chou fail to disclose estimating a future position fix of the mobile station based on the plurality of location fixes and evaluating the validity of a recently generated location fix of the mobile station by determining whether it is within a specified range of the estimated future position fix of the mobile station.

However, Sanderford discloses these features at col. 2, lines 53-59. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention was made to modify the method of Jones and Chou by incorporating this feature taught in Sanderford for the purpose of further increasing the accuracy and reliability of the location fix.

***Allowable Subject Matter***

10. Claims 12-15 and 20 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

11. Claim 33 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. The following is a statement of reasons for the indication of allowable subject matter: the claims are allowed or objected to for the reasons state in the previous Office action.

***Response to Arguments***

13. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Bhattacharya whose telephone number is (571) 272-7917. The examiner can normally be reached on Weekdays, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Eng can be reached on (571) 272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information As to the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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